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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,176	08/23/2005	Mitsuhiro Nishina	GOT 204NP	5718
23995	7590	10/26/2007	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			TRAN, DALENA	
		ART UNIT	PAPER NUMBER	
		3664		
		MAIL DATE	DELIVERY MODE	
		10/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/518,176	NISHINA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Dalena Tran	3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 23 August 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/15/04, 9/07/06</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This application has been examined. Claims 1-10 are pending.

The prior art submitted on 12/15/04, and 9/7/06 has been considered.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1, is rejected under 35 U.S.C. 102(b) as being anticipated by (EP 0932240 A2).

As per claim 1, (EP 0932240 A2) discloses an electricity storage controller for vehicles comprising: a rotary electric machine which constitutes a prime mover of a vehicle (see [0008-0009]); an electricity storage device serving as a main power source of the rotary electric machine and composed of a plurality of capacitor modules each of which contains plural capacitor cells (see [0010-0012]); calculating assigned voltages of each capacitor modules (see [0013-0015]); calculating an average value of the assigned voltages; and equalizing the assigned voltages of each modules based on the average value (see [0017-0019]).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6, and 10, are rejected under 35 U.S.C.103(a) as being unpatentable over (EP 0932240 A2) in view of Lotfy et al. (5850351).

As per claim 2, (EP 0932240 A2) discloses bypass circuits, which are normally open, are connected in parallel, respectively, with each capacitor cells that are connected in series (see [0016]). (EP 0932240 A2) does not disclose calculating an average value of assigned voltages of the capacitor cells. However, Lotfy et al. disclose calculating an average value of assigned voltages of the capacitor cells from the average value of the assigned voltages of the capacitor modules (see columns 6-7, lines 43-3); setting a bypass reference voltage based on the average value of the assigned voltages of the capacitor cells (see column 4, lines 11-52); and closing the bypass circuit of the capacitor cell, in which the assigned voltage of the capacitor cell exceed the bypass reference voltage, of the capacitor module in which the assigned voltage of the capacitor module exceed the average value of the capacitor module (see columns 7-8, lines 4-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of (EP 0932240 A2) by combining calculating an average value of assigned voltages of the capacitor cells for distributed management for battery pack.

As per claims 3, and 10, Lotfy et al. also disclose determining whether or not vehicle conditions allow closing of the bypass circuit, the bypass circuit can be closed only when the determination means makes affirmative determination (see columns 7-8, lines 4-32; and column 9, lines 31-58).

As per claim 4, Lotfy et al. disclose the determination means does not allow the affirmative determination when a temperature of the capacitor module exceeds a normal range (see columns 6-7, lines 43-3; and columns 9-10, lines 31-65).

As per claim 5, Lotfy et al. disclose the determination means does not allow the affirmative determination when an inverter current of an inverter which is a relay between the rotary electric machine and the electricity storage device is greater than a stipulated value (see columns 4-5, lines 53-51).

As per claim 6, (EP 0932240 A2) discloses the bypass circuit comprises a resistance and a bypass transistor (see [0016]).

6. Claims 7-9, are rejected under 35 U.S.C.103(a) as being unpatentable over (EP 0932240 A2), and Lotfy et al. (5850351) as applied to claim 2 above, and further in view of Takahashi et al. (6262561).

As per claim 7, (EP 0932240 A2), and Lotfy et al. do not disclose summing up detected values of the assigned voltages of the capacitor cells as a total voltage of each capacitor module. However, Takahashi et al. disclose detecting assigned voltages of each capacitor cells which are connected in series and means for summing up detected values of the assigned voltages of the capacitor cells as a total voltage of each capacitor module (see columns 3-4, lines 52-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of (EP 0932240 A2), and Lotfy et al. by combining summing up detected values of the assigned voltages of the capacitor cells as a total voltage of each capacitor module to determine battery supply voltage.

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As per claim 8, (EP 0932240 A2) discloses summing up a total voltage of each capacitor modules and means for dividing its total value by number of capacitor modules (see [0017-0019]).

As per claim 9, Takahashi et al. disclose the means for calculating an average value of assigned voltages of the capacitor cells from the average value of the assigned voltages of the capacitor modules is means for dividing an average value of assigned voltages of the capacitor modules by number of series of the capacitor cells of a set of the capacitor modules (see column 3, lines 13-51).

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- . Podrazhansky et al. (5504415)
- . Hoffman, Jr. et al. (5869950)
- . Ichihara (6330455)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-W (in a first week of a bi-week), and T-R (in a second week of bi-week) from 7:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner  
Dalena Tran

  
October 24, 2007